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REMARKS

Claims 1-30 are pending in the application and are being examined with respect to SEQ ID NO: 1. Applicants expressly reserve the right to file divisional applications or take such other appropriate measures deemed necessary to protect the non-elected sequences. Claims 1-8, 20 and 28 have been amended. Support for the amendments can be found in the specification as filed. No new matter has been added by way of amendment. Reexamination and reconsideration of the claims are respectfully requested.

Claim Objections

The Examiner has objected to the claims for containing non-elected subject matter, namely SEQ ID NOs: 2, 3 and 4. Applicants have amended the claims to remove reference to the non-elected sequences, thereby obviating the objection. Applicants respectfully request that the Examiner withdraw the objection.

The Rejection of Claims Under 35 USC §112, First Paragraph, Should be Withdrawn Written Description

The Examiner has rejected claims 1-4 and 6-30 under 35 USC §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

The claims are drawn to an isolated or recombinant nucleic acid molecule comprising a promoter operably linked to a heterologous polynucleotide, wherein the promoter comprising a nucleotide sequence that is at least about 70% identical to SEQ ID NO: 1, and nucleotide sequence that is at least about 80% or 90% identical to SEQ ID NO: 1, and wherein the promoter specifically hybridizes to a nucleic acid comprising a nucleotide sequence of SEQ ID NO: 1, or a complement thereof. The claims are also drawn to an isolated or recombinant nucleic acid molecule comprising a promoter

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operably linked to a heterologous polynucleotide, wherein the promoter comprising a nucleotide sequence that is at least 90% identical to 100 contiguous nucleotides in a nucleotide sequence of SEQ ID NO: 1, and to the promoter comprising at least 20 and 40 contiguous nucleotides in the sequence of SEQ ID NO: 1.

The Examiner states (page 4) that "Applicants do not describe any polynucleotide promoter sequences that are 90%, 80% or 70% identical to SEQ ID NO: 1." The Examiner also states "Applicants further do not describe any polynucleotide promoter sequences that are at least 90% identical to 100 contiguous nucleotides in a nucleotide sequence of SEQ ID NO: 1, or to the promoter comprising at least 20 contiguous nucleotides in the nucleotide sequence of SEQ ID NO: 1, and to the promoter comprising at least 40 contiguous nucleotides in a nucleotide sequence of SEQ ID NO: 1." Applicants respectfully disagree with the Examiner's statement.

Applicants present four nucleotide sequences in the instant application, of which SEQ ID NO: 1 is currently under examination. The Examiner's attention is respectfully directed to the fact that SEQ ID NO: 2 is 100% identical to SEQ ID NO: 1 over a stretch of 476 nucleotides. SEQ ID NO: 3 is 85.2% identical to SEQ ID NO: 1 over the full length, and is 100% identical to SEQ ID NO: 1 over a stretch of 369 nucleotides. SEQ ID NO: 4 is 88.2% identical to SEQ ID NO: 1 over the full length and is 100% identical to SEQ ID NO: 1 over a stretch of 369 nucleotides. GAP alignments showing these identities are attached to the instant response as an appendix.

As such, Applicants have clearly described 1 promoter sequence (SEQ ID NO: 2) that is at least 90% identical to SEQ ID NO: 1 and three promoter sequences (SEQ ID NOs: 2, 3 and 4) that are at least 80% identical to SEQ ID NO: 1. Furthermore, Applicants do in fact describe three promoter sequences (SEQ ID NOs: 2, 3 and 4) that are at least 90% identical to 100 contiguous nucleotides of SEQ ID NO: 1. Inherently, these same three promoter sequences are at least 90% identical to at least 20 and at least 40 contiguous nucleotides of SEQ ID NO: 1. Furthermore, these three promoter

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sequences would hybridize to SEQ ID NO: 1 under the conditions described in the specification.

In addition, Applicants provide working examples in the specification to show that all these sequences have activity as promoters.

In the interest of furthering prosecution, Applicants have amended the claims to remove reference to promoters having 70% identity to the nucleotide sequence presented in SEQ ID NO: 1.

The Examiner states on page 5 of the Office Action that "Applicants only describe a single promoter sequence (SEQ ID NO: 1)."

Applicants respectfully disagree. Although the Examiner has required restriction to a single nucleotide sequence for current prosecution, contrary to the Examiner's assertion, Applicants did not only describe a single promoter sequence (SEQ ID NO: 1). In fact Applicants described three working variant promoters (SEQ ID NOs: 2, 3, and 4) with varying identity levels to SEQ ID NO: 1. Although these sequences are not currently under examination, Applicants nonetheless described these other promoter sequences in the instant application, and described their structure in comparison to SEQ ID NO: 1.

The Examiner also states on page 5 of the current Office Action, "Furthermore, Applicants fail to describe structural features common to members of the claimed genus of polynucleotides (...) Furthermore, given the lack of description of the necessary elements essential for SEQ ID NO: 1 promoter activity, it remains unclear what features identify a polynucleotide of SEQ ID NO: 1 other than the SEQ ID NO: itself."

Applicants respectfully disagree. Applicants provide SEQ ID NO: 1 as the SVBV promoter initially isolated from the SVBV E3 genome. SEQ ID NO: 2 is a modification of SEQ ID NO: 1 providing a minimal SVBV promoter, as described on page 13, lines 21-28. SEQ ID NO: 3 of the invention is a modification of SEQ ID NO: 2 such that it has had nucleotides 1-108 of SEQ ID NO:2 replaced by a repeat of nucleotides 92-362 of SEQ ID NO: 2. Similarly, SEQ ID NO: 4 has nucleotides 1-108 of SEQ ID NO:2

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replaced by nucleotides 92-404 of SEQ ID NO: 2. These two promoters thus contain the necessary structural enhancer element required for enhancing promoter activity. These modifications are described by Applicants on page 36, lines 29-33, of the instant application. The results given in Tables 1, 2, and 3 on page 39 of the instant application clearly show that all these promoters (SEQ ID NOs: 1-4) have activity, but that SEQ ID NOs: 3 and 4 have much stronger activity than the minimal promoter, SEQ ID NO: 2. As such, Applicants have clearly demonstrated necessary elements essential for promoter activity in the SVBV promoter of the invention, and have also demonstrated which elements are required for enhancing the activity of the SVBV promoter.

Enablement

The Examiner has rejected claims 1-4 and 6-30 under 35 USC §112, first paragraph because the specification, while being enabling for a nucleic acid comprising a promoter comprising SEQ ID NO: 1 does not reasonably provide enablement for the broad scope of the claims. The Examiner asserts that the specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with the claims.

Specifically, the Examiner states that since claims 1-4 and 6-30 are rejected as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention, one skilled in the art would not know how to make and use the invention commensurate in scope with these claims

As already presented in the instant response, Applicants assert that indeed they have presented four promoter sequences, all of which have been shown to have promoter activity and all of which fall within the scope of the claims as amended.

Accordingly, Applicants request that the rejection of claims 1-4 and 6-30 under 35 USC §112, first paragraph, for enablement and written description, be withdrawn.

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The Rejection of Claims Under 35 USC §102 Should be Withdrawn

The Examiner has rejected claims 1-15, 21-25 and 27-30 under 35 USC §102(e) as being anticipated by WO 01/96584 (hereinafter WO '584). WO '584 discloses a promoter sequence (ABX09826) for a strawberry vein banding virus, which is 1071 nucleotides in length. The application claims promoter sequences comprising the 1071 base pair sequence.

The WO '584 application does not teach any variants of the 1071 base pair sequence, nor does it provide any teaching, suggestion or motivation to make, use or test shorter regions of the strawberry vein banding virus promoter disclosed therein. The WO '584 application does not in any way teach or suggest that a promoter of shorter length than the disclosed 1071 base pair promoter would be expected to retain promoter activity. Furthermore, the WO '584 application does not provide any working examples to show activity of the 1071 base pair sequence as a promoter.

This is not Applicants' invention. SEQ ID NO: 1 of the instant application is only 476 nucleotides in length, and is therefore is less than half the length of the WO '584 promoter. Applicants' SEQ ID NO: 1 does not comprise the WO '584 promoter. Furthermore, over the full length, SEQ ID NO: 1 is only 44% identical to the WO '584 promoter because it is missing 66% of the WO '584 sequence.

In the interests of furthering prosecution, Applicants have also limited the claims to promoters of less than 1000 base pairs in length, thus eliminating any possible overlap with the 1071 base pair sequence disclosed in the WO '584 application.

Accordingly, the WO '584 sequence does not disclose each and every element of Applicants' invention because it does not teach a functional 476 base pair fragment of the SVBV promoter, nor does it teach or suggest that such a fragment would be expected to retain activity.

Accordingly, Applicants request that the rejection of claims 1-15, 21-25 and 27-30 under 35 USC §102(e), be withdrawn.

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The Rejection of Claims Under 35 USC §103 Should be Withdrawn

The Examiner has rejected claims 1-15, and 21-30 under 35 USC §103(a) as being unpatentable over WO 01/96584 (hereinafter WO '584), in view of Hiei *et al.* (US 5,591,616).

WO '584 discloses a promoter sequence (ABX09826) for a strawberry vein banding virus, which is 1071 nucleotides in length. The application claims promoter sequences comprising the 1071 base pair sequence. Hiei *et al.* (US 5,591,616) teaches transformation of monocot plants to produce transgenic plants.

Applicants have already discussed the WO '584 application previously in this response. In view of the arguments already presented differentiating the subject matter of the instant invention from that of the WO '584 application, the teachings of the WO '584 application and the teachings of Hiei *et al.* cannot be combined to teach, suggest, or disclose the subject matter of the present invention.

Accordingly, Applicants request that the rejection of claims 1-15 and 21-30 under 35 USC §103(a), be withdrawn.

CONCLUSION

In view of the above amendments and remarks, Applicants submit that the rejections of the claims under 35 USC §112, first and second paragraphs, 35 USC §102, and 35 USC §103 have been overcome. Applicants respectfully submit that this application is now in condition for allowance. Early notice to this effect is solicited.

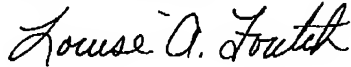
If in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject Application, the Examiner is invited to call the undersigned.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR

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§1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-1852.

Respectfully submitted,



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